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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/461,061	12/15/1999	KEITH R. MCCRAE	6056-260	3290

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EXAMINER

ROBINSON, HOPE A

ART UNIT	PAPER NUMBER
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1653

DATE MAILED: 08/08/2003

25

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/461,061

Applicant(s)

MCCRAE, KEITH R.

Examiner

Hope A. Robinson

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1653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 May 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7,24 and 49-56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-7,24 and 49-56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### **DETAILED ACTION**

1. Applicant's response to the Office Action mailed March 13, 2003 in Paper No. 25 on May 21, 2003 is acknowledged.

#### ***Claim Disposition***

2. Claims 8, 12-23 and 25-48 have been canceled. Claims 49-56 have been added. Claim 1 has been amended. Claims 1-7, 24, 49-56 are pending and under examination.
3. The following grounds of rejection are or remain applicable:

#### ***Claim Rejections - 35 U.S.C. § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7 remain rejected under 35 U.S.C. 102(b) as being anticipated by Auerswald et al. (FEBS, vol. 321, no. 1, pages 93-97, 1993).

Auerswald teach the sequences contained in SEQ ID NOs: 1-4, 9 and 10 of the instant application (see Figure 3 of the reference). Although the sequence disclosed by Auerswald exceed 12 amino acid residues, the claims recite open language such as "comprising" and "has".

Therefore as the reference teaches sequences that are identical to the claimed sequences the claims are anticipated.

***Claim Rejections - 35 U.S.C. § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-7, 24 and 49-56 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Auerswald et al. (FEBS, vol. 321, no. 1, pages 93-97, 1993).

Auerswald teach the sequences contained in SEQ ID NOs: 1-4, 9 and 10 of the instant application (see Figure 3 of the reference). Although the sequence disclosed by Auerswald exceed 12 amino acid residues, the claims recite open language such as “comprising” and “has”, therefore claims 1-7 are taught by the reference. Auerswald does not teach a method of inhibiting angiogenesis comprising administering the peptide disclosed, however, Auerswald teaches the claimed peptides with a 100% sequence identity which are described in the instant specification as possessing anti-angiogenic activity (see page 4 of the specification). In addition, the reference provides motivation to obtain a method to inhibit angiogenesis. Auerswald teach that there is a structure function relationship with the disclosed peptides, thus, once in possession of the anti-angiogenic peptides, the method is an obvious extension. Additionally, it is well known in the art that peptides derived from Kininogen can inhibit angiogenesis. Therefore, the claimed invention as a whole was *prima facie* obvious.

6. Claims 1-7, 24 and 49-56 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Auerswald et al. (FEBS, vol. 321, no. 1, pages 93-97, 1993) taken with Colman et al. (Blood, vol. 92, no. 10, November 15, 1998).

Auerswald et al. teaches peptides derived from kininogen that are identical to the claimed invention, which are disclosed as being anti-angiogenic (see page 4 of the instant specification). In-as-far-as Auerswald et al. does not teach the method of claim 24 explicitly, Colman et al. teach the inhibition of angiogenesis by peptides derived from kininogen. Although Colman et al. does not disclose the claimed sequence, Colman et al. teaches the same domain as claimed. For example, page 7 of the instant specification disclose that the invention is directed to peptide fragments of the HK domain 3, which fragments inhibit endothelial cell proliferation and thus possess anti-angiogenic activity. Colman et al. teach that HKa is proangiogenic and that peptides from HKa could complete and inhibit angiogenesis by inhibiting the interaction of HKa with uPAR. Therefore, one of ordinary skill in the art would be motivated to combine the teachings of Auerswald et al. with Colman et al. because both references teach peptides derived from Kininogen and Colman et al. teach a method of inhibition of angiogenesis with said peptide. Thus, the claimed invention was obvious to make and use at the time it was made and was *prima facie* obvious.

7. Applicant's arguments filed on May 21, 2003 have been fully considered. Note that the rejections of record have been maintained because the prior art cited remains applicable as the instant claims recite open language such as "comprising" which does not limit the length of the peptide to a length defined by X1-SEQ ID NO:1-X2. Thus, the arguments presented in the response, which state that, the claims are neither anticipated nor obvious because the largest claimed peptide has 32 amino acid and the cited art does not teach such a peptide is not

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persuasive. Additionally, applicant is reminded that only a mere suggestion is required for obviousness and that the combined teachings of the cited references renders the claimed invention as obvious not each reference by itself. Therefore, the arguments presented on pages 5-11 are not persuasive.

***Conclusion***

8. Applicant's amendment necessitated the new/modified ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. No claims are allowable .

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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Hope A. Robinson whose telephone number is (703)308-6231. The Examiner can normally be reached on Monday- Friday from 9:00 A.M. to 5:30 P.M. (EST).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor Christopher S.F. Low, can be reached at (703)308-2932.

Any inquiries of a general nature relating to this application should be directed to the Group Receptionist whose telephone number is (703)308-0196.

Papers related to this application may be submitted by facsimile transmission. The official fax phone number for Technology Center 1600 is (703) 308-2742. Please affix the Examiner's name on a cover sheet attached to your communication should you choose to fax your response. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG (November 15, 1989).

Hope A. Robinson, MS *AR*

Patent Examiner

*Christopher S.F. Low*  
CHRISTOPHER S. F. LOW  
SUPERVISORY PATENT EXAMINER  
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